

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of:

Takai *et al.*

Patent. No.: 7,364,876

Issued: April 29, 2008

For: **ADIP Protein and Use Thereof**

Confirmation No.: 4948

Art Unit: 1646

Examiner: Basi, Nirmal Singh

Atty. Docket: 2144.0100000/RWE/BAH

**Request for Certificate of Correction
Under 37 C.F.R. § 1.322 and 1.323**

Attn: Certificate of Correction Branch

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

It is hereby requested that a Certificate of Correction under 37 C.F.R. §§ 1.322 and 1.323 be issued for the above-captioned United States Patent. This Certificate of Correction is being requested due to mistakes which appear in the printed patent. These mistakes were made by both the U.S. Patent and Trademark Office and by Applicants. The mistakes made by Applicants are of a clerical or typographical nature, or of a minor character. Patentees submit that correction of these errors does not introduce new matter.

Specifically, the printed patent contains the following errors for which a Certificate of Correction is respectfully requested:

Requested Change to Letters Patent	Location of Support in File History
In the specification at column 6, line 10, please delete "Functional" and insert therefor --Junctional--.	Original specification, at page 10, line 2. PTO's error.

Requested Change to Letters Patent	Location of Support in File History
In the specification at column 11, line 7, please delete "MADIP-M" and insert therefor --MADIP-M--.	Original specification at page 18, line 31. PTO's error.
In the specification at column 13, line 55, please delete "acids" and insert therefor --acid--; and delete "the an" and insert therefor --an--.	Original specification, at page 23, lines 25-26. Applicant's typographical error.
In the specification at column 14, line 57, please delete "Examples" and insert therefor --Example--.	Original specification, at page 25, line 21. Applicant's typographical error.
In the specification at column 18, line 3, please delete "ascites is" and insert therefor --ascites are--.	Original specification at page 31, lines 12- 13. Applicant's typographical error.
In the specification at column 19, line 15, please delete "myocaroditis" and insert therefor --myocarditis--.	Original specification at page 33, line 14. Applicant's typographical error.
In the specification at column 19, line 63, please delete "myocaroditis" and insert therefor --myocarditis--.	Original specification at page 34, line 23. Applicant's typographical error.
In the specification at column 20, line 52, please delete "DNAs" and insert therefor --DNAs--.	Original specification at page 36, line 5. PTO's error.
In the specification at column 25, line 34, please delete "nectin-2 α -AC-L cells" and insert therefor --nectin-2 α - Δ C-L cells--.	Original specification at page 44, line 6. PTO's error.
In the specification at column 26, line 43, please delete "MADIP" and insert therefor --MADIP--.	Original specification at page 46, line 2. PTO's error.
In the specification at column 28, line 50, please delete "MBP-MADIP" and insert therefor --MBP-mADIP--.	Original specification at page 49, line 18. PTO's error.
In the specification at column 30, line 16, please delete "J. Cell Biol." And insert therefor --J. Cell Biol.--.	Original specification at page 52, line 2. PTO's error.
In the specification at column 30, lines 34-35, please delete "nectin-2 α - α C-L cells" and insert therefor --nectin-2 α - Δ C-L cells--.	Original specification at page 52, lines 16-17. PTO's error.
In the specification at column 31, line 2, please delete "concentrated" and insert therefor --concentrate--.	Original specification at page 53, line 13. Applicant's typographical error.
In the specification at column 33, lines 41-42, please delete "2 mM Ca" and insert therefor --2 mM Ca ²⁺ --.	Original specification at page 57, lines 18-19. PTO's error.

Requested Change to Letters Patent	Location of Support in File History
In the specification at column 35 through column 54, please delete the sequence listing and insert the substitute sequence listing filed at the PTO on August 20, 2007.	Substitute Sequence Listing filed August 20, 2007. PTO's error.
In claim 3, at column 53, line 22, please delete "claim 1" and insert therefor --claim 2--.	Claim 23, line 2, of Amendment and Reply filed August 20, 2007. PTO's error.
In claim 4, at column 54, line 17, please delete "supernatant" and insert therefor --supernatant--.	Claim 5, line 4, of Amendment and Reply filed August 20, 2007. PTO's error.

Remarks

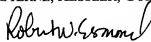
The above-noted corrections do not involve such changes in the patent as would constitute new matter or would require reexamination.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon. Accordingly, a Certificate of Correction is believed proper and issuance thereof is respectfully requested. These documents are filed electronically through EFS-Web.

This request is accompanied by payment of the fee set forth in 37 C.F.R. § 1.20(a). Fee payment is provided through online credit card payment. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Robert W. Esmond", written over the printed name.

Robert W. Esmond
Attorney for Patentees
Registration No. 32,893

Date: January 6, 2009

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

883833_1.DOC

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

At column 6, line 10, delete "Functional" and insert therefor --Junctional--.

At column 11, line 7, delete "MADIP-M" and insert therefor --MADIP-M--.

At column 13, line 55, delete "acids" and insert therefor --acid-- and delete "the an" and insert therefor --an--.

At column 14, line 57, delete "Examples" and insert therefor --Example--.

At column 18, line 3, delete "ascites is" and insert therefor --ascites are--.

At column 19, line 15, delete "myocaroditis" and insert therefor --myocarditis--; and
line 63, delete "myocaroditis" and insert therefor --myocarditis--.

At column 20, line 52, delete "DNAS" and insert therefor --DNAs--.

883944_1.DOC

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At column 25, line 34, delete "nectin-2 α -AC-L cells" and insert therefor --nectin-2 α - Δ C-L cells--.

At column 26, line 43, delete "MADIP" and insert therefor --mADIP--.

At column 28, line 50, delete "MBP-MADIP" and insert therefor --MBP-mADIP--.

At column 30, line 16, delete "j. Cell Biol." and insert therefor --J. Cell Biol.--; and
lines 34-35, delete "nectin-2 α - α C-L cells" and insert therefor --nectin-2 α - Δ C-L cells--.

At column 31, line 2, delete "concentrated" and insert therefor --concentrate--.

At column 33, lines 41-42, delete "2 mM Ca" and insert therefor --2 mM Ca²⁺--.

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DATED: April 29, 2008

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At column 35 through column 54, please delete the sequence listing and insert therefor the following sequence listing:

SEQUENCE LISTING

<110> EISAI CO., LTD.
<120> ADIP PROTEIN AND USE THEREOF
<130> 2144.0100000
<140> US 10/644,084
<141> 2003-08-20
<150> JP 2002-284263
<151> 2002-09-27
<160> 9
<170> PatentIn version 3.3

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Page 4 of 40

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DATED: April 29, 2008

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```

<210> 1
<211> 2692
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (80) .. (1927)
<223> /note="afadin-and alpha-actinin-binding protein"

<400> 1
cgtaggagag tgacaggagc tgttgtaagc gtcgcagcac tgagccgcct cctcaggtat      60

cctggctctg gaacttgct atg gga gat tgg atg act gtg aca gat cca gtt      112
Met Gly Asp Trp Met Thr Val Thr Asp Pro Val
1 5 10

ctg tgt aca gaa aac aaa aat ctc tct caa tat acc tca gaa aca aag      160
Leu Cys Thr Glu Asn Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys
15 20 25

atg tct ccg tcc agt ttg tac tcc cag caa gtt ctg tgc tct tca gta      208
Met Ser Pro Ser Ser Leu Tyr Ser Gln Gln Val Leu Cys Ser Ser Val
30 35 40

cct tta tcc aaa aac gtg cat ggt gtt ttc ggt gtc ttc tgc aca gga      256
Pro Leu Ser Lys Asn Val His Gly Val Phe Gly Val Phe Cys Thr Gly
45 50 55

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Page 5 of 40

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gag aac att gaa caa agt att tcc tat ctt gat cag gag ctg acc acc 304
Glu Asn Ile Glu Gln Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr
60 65 70 75

ttc ggg ttt cct tcc ttg tat gaa gaa tcc aaa agt aaa gag gca aag 352
Phe Gly Phe Pro Ser Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys
80 85 90

```

aga gaa tta aat ata gtc gct gtt ctg aac tgt atg aac gag ctg ctc      400
Arg Glu Leu Asn Ile Val Ala Val Leu Asn Cys Met Asn Glu Leu Leu
          95                      100                      105

```

gtg ctt cag cgg aag aac ctg ctg gcc cag gag agc gtg gag aca cag 448
Val Leu Gln Arg Lys Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln
110 115 120

aac ttg aag ctg ggc agt gac atg gac cac ctg cag agc tgc tac gcc 496
Asn Leu Lys Leu Gly Ser Asp Met Asp His Leu Gln Ser Cys Tyr Ala
125 130 135

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<p>aaa ctt aag gag cag ttg gaa acg tcc agg cgg gag atg atc ggg ctt Lys Leu Lys Glu Gln Leu Glu Thr Ser Arg Arg Glu Met Ile Gly Leu 140 145 150 155</p>	544
<p>caa gag aga gac agg cag ctg cag tgc aag aac agg agt ttg cat cag Gln Glu Arg Asp Arg Gln Leu Gln Cys Lys Asn Arg Ser Leu His Gln 160 165 170</p>	592
<p>ctc ctg aag aat gag aaa gat gag gta caa aaa tta caa aat atc ata Leu Leu Lys Asn Glu Lys Asp Glu Val Gln Lys Leu Gln Asn Ile Ile 175 180 185</p>	640
<p>gcc agc cgg gct act cag tat aat cat gat gtg aag agg aag gag cgt Ala Ser Arg Ala Thr Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg 190 195 200</p>	688
<p>gaa tat aat aag cta aag gag cgc ctg cat cag ctc gtt atg aac aag Glu Tyr Asn Lys Leu Lys Glu Arg Leu His Gln Leu Val Met Asn Lys 205 210 215</p>	736
<p>aag gat aaa aac ata gcc atg gat gtt tta aat tat gtg ggt cga gct Lys Asp Lys Asn Ile Ala Met Asp Val Leu Asn Tyr Val Gly Arg Ala 220 225 230 235</p>	784

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gat ggc aaa cga ggc tca tgg agg act gac aaa aca gaa gcc agg aat Asp Gly Lys Arg Gly Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn 240 245 250	832
gaa gat gag atg tac aaa att ctg ttg aat gat tat gag tac cgc cag Glu Asp Glu Met Tyr Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln 255 260 265	880
aag cag atc ctg atg gag aac gcg gag ctg aag aag gtc ctc cag cag Lys Gln Ile Leu Met Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln 270 275 280	928
atg aag aag gag atg atc tct ctc ctg tct cct cag aag aag aag ccc Met Lys Lys Glu Met Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro 285 290 295	976
agg gaa aga gca gag gac ggc aca ggc act gtt gct atc tcc gat ata Arg Glu Arg Ala Glu Asp Gly Thr Gly Thr Val Ala Ile Ser Asp Ile 300 305 310 315	1024
gaa gat gac tct ggg gaa ctg agc aga gac agc gtg tgg ggc ctt tcc Glu Asp Asp Ser Gly Glu Leu Ser Arg Asp Ser Val Trp Gly Leu Ser 320 325 330	1072

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tgt gac act gtg aga gag cag ctg aca aac agc atc agg aaa cag tgg Cys Asp Thr Val Arg Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp 335 340 345	1120
aga att ttg aaa agt cat gta gaa aaa ctc gat aac caa gct tcg aag Arg Ile Leu Lys Ser His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys 350 355 360	1168
gta cac tca gag ggc ctt aat gag gag gac gtc atc tca cga caa gac Val His Ser Glu Gly Leu Asn Glu Glu Asp Val Ile Ser Arg Gln Asp 365 370 375	1216
cat gag caa gag act gag aaa ctg gag ctg gag att gag cgg tgt aaa His Glu Gln Glu Thr Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys 380 385 390 395	1264
gag atg atc aag gct cag cag cag ctc tta cag cag cag ctg gcc acc Glu Met Ile Lys Ala Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr 400 405 410	1312
acg tgt gat gat gac acc acc tca ctg ttg cga gac tgt tac ttg ctg Thr Cys Asp Asp Asp Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu 415 420 425	1360

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gaa gaa aag gaa cgc ctt aaa gaa gag tgg acc ctt ttt aaa gag caa 1408
Glu Glu Lys Glu Arg Leu Lys Glu Glu Trp Thr Leu Phe Lys Glu Gln
430 435 440

aaa aag aat ttt gag aga gaa agg cga agc ttt aca gaa gct gcc att 1456
Lys Lys Asn Phe Glu Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile
445 450 455

cga ttg ggg ttg gag aga aag gcg ttt gaa gaa gag cga gcc agc tgg 1504
Arg Leu Gly Leu Glu Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp
460 465 470 475

gta aag cag cag ttt tta aac atg acg aac ttt gac cac cag aac tca 1552
Val Lys Gln Gln Phe Leu Asn Met Thr Asn Phe Asp His Gln Asn Ser
480 485 490

gaa aat gtg aaa ctt ttc agt gcc ttc tca gga agt tct gat cca gac 1600
Glu Asn Val Lys Leu Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp
495 500 505

aat ctt ata gtc cac tca cgg cca cgg caa aag aag cta cac agt gtg 1648
Asn Leu Ile Val His Ser Arg Pro Arg Gln Lys Lys Leu His Ser Val
510 515 520

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 10 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

gct aat ggg gtg cca gct tgc aca tca aaa ctg act aaa tct ctt cct	1696
Ala Asn Gly Val Pro Ala Cys Thr Ser Lys Leu Thr Lys Ser Leu Pro	
525 530 535	
 gcc tca cct tct act tca gac ttt cgc cag aca cat tca tgt gtg tct	 1744
Ala Ser Pro Ser Thr Ser Asp Phe Arg Gln Thr His Ser Cys Val Ser	
540 545 550 555	
 gaa cac agt tcc atc agt gtg ctg aat ata act cct gaa gaa agt aaa	 1792
Glu His Ser Ser Ile Ser Val Leu Asn Ile Thr Pro Glu Glu Ser Lys	
560 565 570	
 cca agt gag gtt gca aga gaa agc acg gat cag aag tgg agc gtg cag	 1840
Pro Ser Glu Val Ala Arg Glu Ser Thr Asp Gln Lys Trp Ser Val Gln	
575 580 585	
 tcg agg ccc agc tcg cgg gag ggg tgc tac agc gga tgc tcc tcg gcc	 1888
Ser Arg Pro Ser Ser Arg Glu Gly Cys Tyr Ser Gly Cys Ser Ser Ala	
590 595 600	

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

Page 11 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai et al.

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

ttc agg agc gct cac ggg gac cga gat gac tta cct taa atgtgcgggc	1937
Phe Arg Ser Ala His Gly Asp Arg Asp Asp Leu Pro	
605 610 615	
tgcatgtgctg ttcccagatg tgcgctagag gagttgacac aggggtgtagc ataaagtcag	1997
tcgtctaact taagatgctc agagttgttt gtttgactt cgctgtcttc ccccaaagag	2057
ctgaaatgct aagctactta aaaggatgca aagccttggt tgtgtgttag taacagaagc	2117
ccctggctct gtgactgcag gaatgcatgg cgtttggatg gaaacagaag cgctggaatg	2177
attgcctcgc caggtaaccga gaagagcact ttagggact ggttcctgta aacattaaat	2237
attcgctcca agtggtggtg gcattggaag tgtagccttt acttgaatgt atactgtaga	2297
tttttaacaa agcaggttct atatttatta tgtttagtgt gattttggga ttacctcttt	2357
catatgtttt gtgtctgtac ataaatatac atgactatgt taagaggcct taaggtttaa	2417
aaacttcaca ccatgcttga gtatagcatt tcatgccaat taaaatgttt tcagtggcat	2477

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 12 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

```

ggtgtttaca gaggttagga ccaactgccac atgacagtta agactttatt ttttaagccat 2537
ctgggcaata aaaattcaaa gcccttcat aagctgagtt cagataacta gaactactaa 2597
cggttacattt ttgagatttt taaagcattg tattttattt tatatatgtg aatgttataa 2657
tttctaagag gaatattgat tatggagtaa tggggg 2692

```

```

<210> 2
<211> 615
<212> PRT
<213> Mus musculus

```

```

<400> 2

```

```

Met Gly Asp Trp Met Thr Val Thr Asp Pro Val Leu Cys Thr Glu Asn
1          5          10          15

```

```

Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys Met Ser Pro Ser Ser
20          25          30

```

```

Leu Tyr Ser Gln Gln Val Leu Cys Ser Ser Val Pro Leu Ser Lys Asn
35          40          45

```

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 13 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Val His Gly Val Phe Gly	Val Phe Cys Thr Gly	Glu Asn Ile Glu Gln	
50	55	60	

Ser Ile Ser Tyr Leu Asp	Gln Glu Leu Thr Thr Phe Gly Phe Pro Ser		
65	70	75	80

Leu Tyr Glu Glu Ser Lys	Ser Lys Glu Ala Lys Arg Glu Leu Asn Ile		
85	90	95	

Val Ala Val Leu Asn Cys Met Asn	Glu Leu Val Leu Gln Arg Lys		
100	105	110	

Asn Leu Leu Ala Gln Glu Ser Val	Glu Thr Gln Asn Leu Lys Leu Gly		
115	120	125	

Ser Asp Met Asp His Leu Gln	Ser Cys Tyr Ala Lys Leu Lys Glu Gln		
130	135	140	

Leu Glu Thr Ser Arg Arg Glu Met Ile Gly	Leu Gln Glu Arg Asp Arg		
145	150	155	160

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 14 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Gln Leu Gln Cys Lys Asn Arg Ser Leu His Gln Leu Leu Lys Asn Glu
165 170 175

Lys Asp Glu Val Gln Lys Leu Gln Asn Ile Ile Ala Ser Arg Ala Thr
180 185 190

Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg Glu Tyr Asn Lys Leu
195 200 205

Lys Glu Arg Leu His Gln Leu Val Met Asn Lys Lys Asp Lys Asn Ile
210 215 220

Ala Met Asp Val Leu Asn Tyr Val Gly Arg Ala Asp Gly Lys Arg Gly
225 230 235 240

Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn Glu Asp Glu Met Tyr
245 250 255

Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln Lys Gln Ile Leu Met
260 265 270

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 15 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln Met Lys Lys Glu Met
275 280 285

Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro Arg Glu Arg Ala Glu
290 295 300

Asp Gly Thr Gly Thr Val Ala Ile Ser Asp Ile Glu Asp Asp Ser Gly
305 310 315 320

Glu Leu Ser Arg Asp Ser Val Trp Gly Leu Ser Cys Asp Thr Val Arg
325 330 335

Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp Arg Ile Leu Lys Ser
340 345 350

His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys Val His Ser Glu Gly
355 360 365

Leu Asn Glu Glu Asp Val Ile Ser Arg Gln Asp His Glu Gln Glu Thr
370 375 380

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 16 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys Glu Met Ile Lys Ala
385 390 395 400

Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr Thr Cys Asp Asp Asp
405 410 415

Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu Glu Glu Lys Glu Arg
420 425 430

Leu Lys Glu Glu Trp Thr Leu Phe Lys Glu Gln Lys Lys Asn Phe Glu
435 440 445

Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile Arg Leu Gly Leu Glu
450 455 460

Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp Val Lys Gln Gln Phe
465 470 475 480

Leu Asn Met Thr Asn Phe Asp His Gln Asn Ser Glu Asn Val Lys Leu
485 490 495

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Page 17 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp Asn Leu Ile Val His
500 505 510

Ser Arg Pro Arg Gln Lys Lys Leu His Ser Val Ala Asn Gly Val Pro
515 520 525

Ala Cys Thr Ser Lys Leu Thr Lys Ser Leu Pro Ala Ser Pro Ser Thr
530 535 540

Ser Asp Phe Arg Gln Thr His Ser Cys Val Ser Glu His Ser Ser Ile
545 550 555 560

Ser Val Leu Asn Ile Thr Pro Glu Glu Ser Lys Pro Ser Glu Val Ala
565 570 575

Arg Glu Ser Thr Asp Gln Lys Trp Ser Val Gln Ser Arg Pro Ser Ser
580 585 590

Arg Glu Gly Cys Tyr Ser Gly Cys Ser Ser Ala Phe Arg Ser Ala His
595 600 605

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 18 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Gly Asp Arg Asp Asp Leu Pro
610 615

<210> 3
<211> 3195
<212> DNA
<213> Rattus norvegicus

<220>
<221> CDS
<222> (79) .. (1920)

<220>
<221> misc_feature
<222> (2422) .. (2422)
<223> "n"=any one base of a, t, c, or g

```
<400> 3
gtaggagagt gacaggagct gttgtgcatg cccagcact gaactgcctt ctcagggacc      60

ctggctctgg gactggct atg gga gat tgg atg act gtt aca gat cca gtt      111
      Met Gly Asp Trp Met Thr Val Thr Asp Pro Val
      1                      5                      10

ctg tgt aca gaa aac aaa aat ctc tct caa tat acc tca gaa aca aag      159
Leu Cys Thr Glu Asn Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys
      15                      20                      25
```

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 19 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

atg tct ccg tca agt tta tac tcg cag caa gta ctg tgc tct gca aca Met Ser Pro Ser Ser Leu Tyr Ser Gln Gln Val Leu Cys Ser Ala Thr 30 35 40	207
cct tta tcc aag aat gtg cat ggt gtt ttc agt gcc ttc tgc aca gga Pro Leu Ser Lys Asn Val His Gly Val Phe Ser Ala Phe Cys Thr Gly 45 50 55	255
gag aac atc gaa cag agt att tcg tat ctt gat cag gaa ctg act acc Glu Asn Ile Glu Gln Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr 60 65 70 75	303
ttc ggt ttc cct tcc ttg tat gaa gaa tcc aaa agt aag gag gcg aag Phe Gly Phe Pro Ser Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys 80 85 90	351
cga gag tta agt ata gtt gct ctt ctg aac tgc atg aat gag ctg ctt Arg Glu Leu Ser Ile Val Ala Leu Leu Asn Cys Met Asn Glu Leu Leu 95 100 105	399
gtg ctt cag cgg aag aac ctc ctg gcc cag gaa agc gtg gag aca cag Val Leu Gln Arg Lys Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln 110 115 120	447
aat ctg aag ctg ggc agt gac atg gac cac ctg cag agc tgc tac gcc Asn Leu Lys Leu Gly Ser Asp Met Asp His Leu Ser Cys Tyr Ala 125 130 135	495

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Page 20 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

<p>aaa ctt aag gaa cag ttg gag gcc tcc agg cga gag atg atc agc ctt Lys Leu Lys Glu Gln Leu Glu Ala Ser Arg Arg Glu Met Ile Ser Leu 140 145 150 155</p>	543
<p>cag gag aga gac aga cag cta cag tgc aaa aac agg aat ttg cat cag Gln Glu Arg Asp Arg Gln Leu Gln Cys Lys Asn Arg Asn Leu His Gln 160 165 170</p>	591
<p>ctc ctg aaa aac gag aaa gaa gag gta caa aaa tta caa aat atc ata Leu Leu Lys Asn Glu Lys Glu Glu Val Gln Lys Leu Gln Asn Ile Ile 175 180 185</p>	639
<p>gcc agt cgg gct act cag tat aat cat gat gtg aag aga aag gag cgg Ala Ser Arg Ala Thr Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg 190 195 200</p>	687
<p>gag tac aat aaa ctg aag gag cgt ctg cat cag ctt gtt atg aac aag Glu Tyr Asn Lys Leu Lys Glu Arg Leu His Gln Leu Val Met Asn Lys 205 210 215</p>	735
<p>aag gat aaa aat ata gcc atg gac gtt tta aat tac gtg ggc cga gtg Lys Asp Lys Asn Ile Ala Met Asp Val Leu Asn Tyr Val Gly Arg Val 220 225 230 235</p>	783
<p>gat gga aag cga ggc tcc tgg agg act gat aaa aca gaa gcc agg aat Asp Gly Lys Arg Gly Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn 240 245 250</p>	831

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Page 21 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

gaa gat gaa atg tac aaa att ctg ctg aat gat tat gag tac cgc cag 879
Glu Asp Glu Met Tyr Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln
255 260 265

aag cag atc ctg ctg gag aat gcg gag ctg aag aag gtc ctc cag cag 927
Lys Gln Ile Leu Leu Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln
270 275 280

atg aag aaa gag atg atc tct ctc ctt tct cct caa aag aag aaa ccc 975
Met Lys Lys Glu Met Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro
285 290 295

aga gaa aga gca gag gac agc aca ggc act gtt gtc atc tcc gat gta 1023
Arg Glu Arg Ala Glu Asp Ser Thr Gly Thr Val Val Ile Ser Asp Val
300 305 310 315

gaa gac gac gct ggg gag ctg agc aga gat ggt gtg tgg agc ctt tcc 1071
Glu Asp Asp Ala Gly Glu Leu Ser Arg Asp Gly Val Trp Ser Leu Ser
320 325 330

tgt gac act gtc agg gag cag ctt aca aac agc atc agg aag cag tgg 1119
Cys Asp Thr Val Arg Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp
335 340 345

aga att ctg aaa agc cat gtg gaa aaa ctt gat aac caa gct tca aag 1167
Arg Ile Leu Lys Ser His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys
350 355 360

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 22 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai et al.

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

gta cac tca gag ggc ttt cat gaa gag gac gtc atc tca cga caa gac Val His Ser Glu Gly Phe His Glu Glu Asp Val Ile Ser Arg Gln Asp 365 370 375	1215
cat gag caa gag act gag aaa ctg gag ctg gag att gag cgg tgt aaa His Glu Gln Glu Thr Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys 380 385 390 395	1263
gag atg atc aag gct cag cag cag ctc tta cag caa cag ctg gcc act Glu Met Ile Lys Ala Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr 400 405 410	1311
gcg tgt gat gac gac acc acc tca ctg ttg cga gac tgt tac ttg ctt Ala Cys Asp Asp Asp Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu 415 420 425	1359
gaa gaa aag gaa cgc ctt aaa gaa gag tgg tcc ctt ttt aaa gag caa Glu Glu Lys Glu Arg Leu Lys Glu Glu Trp Ser Leu Phe Lys Glu Gln 430 435 440	1407
aaa aag aat ttt gag aga gaa aga cga agc ttt aca gaa gct gct att Lys Lys Asn Phe Glu Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile 445 450 455	1455
cgc ttg ggg ttg gag aga aag cgc ttt gag gaa gag cga gcc agc tgg Arg Leu Gly Leu Glu Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp 460 465 470 475	1503

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 23 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai et al.

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

gtg aag cag cag ttt tta aac atg acg acc ttt gat cac cag aac tca Val Lys Gln Gln Phe Leu Asn Met Thr Thr Phe Asp His Gln Asn Ser <div style="display: flex; justify-content: space-between; width: 100%;"> 480 485 490 </div>	1551
gaa aat gtg aaa ctt ttc agt gcc ttt tca gga agt tct gat cca gac Glu Asn Val Lys Leu Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp <div style="display: flex; justify-content: space-between; width: 100%;"> 495 500 505 </div>	1599
aat ctt ata gtc cac cca cgg cca cgg caa aag aag cca cac agt gtc Asn Leu Ile Val His Pro Arg Pro Arg Gln Lys Lys Pro His Ser Val <div style="display: flex; justify-content: space-between; width: 100%;"> 510 515 520 </div>	1647
gct aat ggg gtg cca gct tgc aca tcc aaa ctg gct aag tct ctt ccg Ala Asn Gly Val Pro Ala Cys Thr Ser Lys Leu Ala Lys Ser Leu Pro <div style="display: flex; justify-content: space-between; width: 100%;"> 525 530 535 </div>	1695
acc tca cct tca gac ttc tgc ccg tct cgc tca tgt gtg tct gag cac Thr Ser Pro Ser Asp Phe Cys Pro Ser Arg Ser Cys Val Ser Glu His <div style="display: flex; justify-content: space-between; width: 100%;"> 540 545 550 555 </div>	1743
agt ccc gtc agt gcg ctg act gtg act cct gaa gaa acc aaa ccg aat Ser Pro Val Ser Ala Leu Thr Val Thr Pro Glu Glu Thr Lys Pro Asn <div style="display: flex; justify-content: space-between; width: 100%;"> 560 565 570 </div>	1791
gag gtt gga aga gaa agt acg gac cag aag tgg agc gtg gtg tcc aga Glu Val Gly Arg Glu Ser Thr Asp Gln Lys Trp Ser Val Val Ser Arg <div style="display: flex; justify-content: space-between; width: 100%;"> 575 580 585 </div>	1839

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UNITED STATES PATENT AND TRADEMARK OFFICE
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Page 24 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

ccc agc tcc cgg gag ggt tgc tac ggt gga tgc tcc tcg gcc tac aca 1887
Pro Ser Ser Arg Glu Gly Cys Tyr Gly Gly Cys Ser Ser Ala Tyr Thr
590 595 600

agc tcc cac gtg gaa cga gat gac tta cca tag gtgctcgggc tgcagcgctg 1940
 Ser Ser His Val Glu Arg Asp Asp Leu Pro
 605 610

tcctggagtg catgagagga attgacacgg ggtgtagcat aaagtcagcc atctaccgta 2000

agatgtcggg gttatttgtt tggacttccc agtctttccc caaagagctg aaacgcttta 2060

gaggaatcga aagctttggc tgtgtgttag taacagaagc ctctggctct gtgagtaaag 2120

gaatgtatcg tgtttggtcg gaaacaaaag cacgagaatg atttcctctt ccgggtactg 2180

agaatagcac ttttagggac tgattcttgt aaacattaaa tttttgtccc aagtatgggt 2240

ggcattggaa gtttagtctt tacttgaatg tacactgtag atttttaaca aagcagttct 2300

atatttatta tgtttaqtgt gattttggga ttacctcttt catatgtttt ctgcctgtac 2360

ataaatatac atgactatgt taagaagctt taaggtttta aaatttcaca ccatgctcga 2420

gnatagcatt tcatgccaat taaaatgttt tcaatggcat ggtgtttaca gatgtgttag 2480

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 25 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

gaccactgcc acatgacagt taagatttta tttttaagcc atttgggcaa taaaaattca	2540
aagccacttc ataagctaag ttcagatagc taaaactact aacattacat ttttgagatt	2600
tataaagcat tatattttat tttatatatg tgactgttat aatttctaag aggaatgtgg	2660
attatgaagc aatgggggaa agacagaagt gactaatagt gcaagagcat tgggtgaagg	2720
gacggtgat gaggatatgg gagacctggg tggatgattc ttccttaccg acggtgcggt	2780
gcggcgatct ctgtaccgcc agggctttct atcattgcca atacttttgt aattaaagag	2840
attttcaact acataccact actaaagtaa gacagtgtaa aactttggct tttgtaattg	2900
acactctgga cactgggtgtg ttgttcattt ctagaacaat cgtaggctct tttctctgtt	2960
tctgctgcat gtttcttcat gagaagtatg ttactattga cagtaatgac actgacagtg	3020
actgtagacg tagggccaga cttctcctgg gtggattttc atccagcagc ttttaagtgc	3080
ctgcacctgc tcgtctctgc acatagccgc cgacacaagc cctcgcttga tgatgcagat	3140
agtccatctg ctttctctgc ccctgcctct gctatgactg ttgcattaaa ttcac	3195

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 26 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

<210> 4
<211> 613
<212> PRT
<213> Rattus norvegicus

<400> 4

Met Gly Asp Trp Met Thr Val Thr Asp Pro Val Leu Cys Thr Glu Asn
1 5 10 15

Lys Asn Leu Ser Gln Tyr Thr Ser Glu Thr Lys Met Ser Pro Ser Ser
20 25 30

Leu Tyr Ser Gln Gln Val Leu Cys Ser Ala Thr Pro Leu Ser Lys Asn
35 40 45

Val His Gly Val Phe Ser Ala Phe Cys Thr Gly Glu Asn Ile Glu Gln
50 55 60

Ser Ile Ser Tyr Leu Asp Gln Glu Leu Thr Thr Phe Gly Phe Pro Ser
65 70 75 80

Leu Tyr Glu Glu Ser Lys Ser Lys Glu Ala Lys Arg Glu Leu Ser Ile
85 90 95

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

Page 27 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Val Ala Leu Leu Asn Cys Met Asn Glu Leu Leu Val Leu Gln Arg Lys
100 105 110

Asn Leu Leu Ala Gln Glu Ser Val Glu Thr Gln Asn Leu Lys Leu Gly
115 120 125

Ser Asp Met Asp His Leu Gln Ser Cys Tyr Ala Lys Leu Lys Glu Gln
130 135 140

Leu Glu Ala Ser Arg Arg Glu Met Ile Ser Leu Gln Glu Arg Asp Arg
145 150 155 160

Gln Leu Gln Cys Lys Asn Arg Asn Leu His Gln Leu Leu Lys Asn Glu
165 170 175

Lys Glu Glu Val Gln Lys Leu Gln Asn Ile Ile Ala Ser Arg Ala Thr
180 185 190

Gln Tyr Asn His Asp Val Lys Arg Lys Glu Arg Glu Tyr Asn Lys Leu
195 200 205

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 28 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai et al.

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Lys Glu Arg Leu His Gln Leu Val Met Asn Lys Lys Asp Lys Asn Ile
210 215 220

Ala Met Asp Val Leu Asn Tyr Val Gly Arg Val Asp Gly Lys Arg Gly
225 230 235 240

Ser Trp Arg Thr Asp Lys Thr Glu Ala Arg Asn Glu Asp Glu Met Tyr
245 250 255

Lys Ile Leu Leu Asn Asp Tyr Glu Tyr Arg Gln Lys Gln Ile Leu Leu
260 265 270

Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln Met Lys Lys Glu Met
275 280 285

Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro Arg Glu Arg Ala Glu
290 295 300

Asp Ser Thr Gly Thr Val Val Ile Ser Asp Val Glu Asp Asp Ala Gly
305 310 315 320

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Page 29 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Glu Leu Ser Arg Asp Gly Val Trp Ser Leu Ser Cys Asp Thr Val Arg
325 330 335

Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp Arg Ile Leu Lys Ser
340 345 350

His Val Glu Lys Leu Asp Asn Gln Ala Ser Lys Val His Ser Glu Gly
355 360 365

Phe His Glu Glu Asp Val Ile Ser Arg Gln Asp His Glu Gln Glu Thr
370 375 380

Glu Lys Leu Glu Leu Glu Ile Glu Arg Cys Lys Glu Met Ile Lys Ala
385 390 395 400

Gln Gln Gln Leu Leu Gln Gln Gln Leu Ala Thr Ala Cys Asp Asp Asp
405 410 415

Thr Thr Ser Leu Leu Arg Asp Cys Tyr Leu Leu Glu Glu Lys Glu Arg
420 425 430

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 30 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

Leu Lys Glu Glu Trp Ser Leu Phe Lys Glu Gln Lys Lys Asn Phe Glu
435 440 445

Arg Glu Arg Arg Ser Phe Thr Glu Ala Ala Ile Arg Leu Gly Leu Glu
450 455 460

Arg Lys Ala Phe Glu Glu Glu Arg Ala Ser Trp Val Lys Gln Gln Phe
465 470 475 480

Leu Asn Met Thr Thr Phe Asp His Gln Asn Ser Glu Asn Val Lys Leu
485 490 495

Phe Ser Ala Phe Ser Gly Ser Ser Asp Pro Asp Asn Leu Ile Val His
500 505 510

Pro Arg Pro Arg Gln Lys Lys Pro His Ser Val Ala Asn Gly Val Pro
515 520 525

Ala Cys Thr Ser Lys Leu Ala Lys Ser Leu Pro Thr Ser Pro Ser Asp
530 535 540

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Page 32 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai *et al.*

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

<220>
<223> an artificially synthesized primer sequence

<400> 5
cgtaggagag tgacaggagc tg 22

<210> 6
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> an artificially synthesized primer sequence

<400> 6
ggttatcgag tttttctaca tgac 24

<210> 7
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> an artificially synthesized primer sequence

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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 33 of 40

PATENT NO: 7,364,876 B2

DATED: April 29, 2008

INVENTOR(S): Takai et al.

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below.

<400> 7
cgtaggagag tgacaggagc tg 22

<210> 8
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> an artificially synthesized primer sequence

<400> 8
ttcctgtttt tgcactgtag ctg 23

<210> 9
<211> 626
<212> PRT
<213> Homo sapiens

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Washington DC 20005-3934
Atty. Dkt. No. 2144.0100000/RWE/BAH

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INVENTOR(S): Takai *et al.*

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<400> 9

Thr	Ser	Ser	Ser	Gly	Ile	Leu	Ala	Leu	Glu	Ile	Ala	Met	Gly	Asp	Trp
1				5					10					15	

Met	Thr	Val	Thr	Asp	Pro	Gly	Leu	Ser	Ser	Glu	Ser	Lys	Thr	Ile	Ser
			20					25					30		

Gln	Tyr	Thr	Ser	Glu	Thr	Lys	Met	Ser	Pro	Ser	Ser	Leu	Tyr	Ser	Gln
		35					40					45			

Gln	Val	Leu	Cys	Ser	Ser	Ile	Pro	Leu	Ser	Lys	Asn	Val	His	Ser	Phe
	50					55					60				

Phe	Ser	Ala	Phe	Cys	Thr	Glu	Asp	Asn	Ile	Glu	Gln	Ser	Ile	Ser	Tyr
65					70					75					80

Leu	Asp	Gln	Glu	Leu	Thr	Thr	Phe	Gly	Phe	Pro	Ser	Leu	Tyr	Glu	Glu
			85						90					95	

Ser	Lys	Gly	Lys	Glu	Thr	Lys	Arg	Glu	Leu	Asn	Ile	Val	Ala	Val	Leu
			100					105					110		

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Asn	Cys	Met	Asn	Glu	Leu	Leu	Val	Leu	Gln	Arg	Lys	Asn	Leu	Leu	Ala
			115					120					125		

Gln	Glu	Asn	Val	Glu	Thr	Gln	Asn	Leu	Lys	Leu	Gly	Ser	Asp	Met	Asp
				130				135				140			

His	Leu	Gln	Ser	Cys	Tyr	Ser	Lys	Leu	Lys	Glu	Gln	Leu	Glu	Thr	Ser
145						150				155					160

Arg	Arg	Glu	Met	Ile	Gly	Leu	Gln	Glu	Arg	Asp	Arg	Gln	Leu	Gln	Cys
				165					170					175	

Lys	Asn	Arg	Asn	Leu	His	Gln	Leu	Leu	Lys	Asn	Glu	Lys	Asp	Glu	Val
			180					185						190	

Gln	Lys	Leu	Gln	Asn	Ile	Ile	Ala	Ser	Arg	Ala	Thr	Gln	Tyr	Asn	His
		195					200						205		

Asp	Met	Lys	Arg	Lys	Glu	Arg	Glu	Tyr	Asn	Lys	Leu	Lys	Glu	Arg	Leu
	210					215					220				

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His	Gln	Leu	Val	Met	Asn	Lys	Lys	Asp	Lys	Lys	Ile	Ala	Met	Asp	Ile
225					230				235					240	

Leu	Asn	Tyr	Val	Gly	Arg	Ala	Asp	Gly	Lys	Arg	Gly	Ser	Trp	Arg	Thr
				245				250						255	

Gly	Lys	Thr	Glu	Ala	Arg	Asn	Glu	Asp	Glu	Met	Tyr	Lys	Ile	Leu	Leu
			260					265						270	

Asn	Asp	Tyr	Glu	Tyr	Arg	Gln	Lys	Gln	Ile	Leu	Met	Glu	Asn	Ala	Glu
		275					280					285			

Leu	Lys	Lys	Val	Leu	Gln	Gln	Met	Lys	Lys	Glu	Met	Ile	Ser	Leu	Leu
	290					295					300				

Ser	Pro	Gln	Lys	Lys	Lys	Pro	Arg	Glu	Arg	Val	Asp	Asp	Ser	Thr	Gly
305					310					315					320

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INVENTOR(S): Takai *et al.*

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Thr Val Ile Ser Asp Val Glu Glu Asp Ala Gly Glu Leu Ser Arg Glu
325 330 335

Ser Met Trp Asp Leu Ser Cys Glu Thr Val Arg Glu Gln Leu Thr Asn
340 345 350

Ser Ile Arg Lys Gln Trp Arg Ile Leu Lys Ser His Val Glu Lys Leu
355 360 365

Asp Asn Gln Val Ser Lys Val His Leu Glu Gly Phe Asn Asp Glu Asp
370 375 380

Val Ile Ser Arg Gln Asp His Glu Gln Glu Thr Glu Lys Leu Glu Leu
385 390 395 400

Glu Ile Gln Gln Cys Lys Glu Met Ile Lys Thr Gln Gln Gln Leu Leu
405 410 415

Gln Gln Gln Leu Ala Thr Ala Tyr Asp Asp Asp Thr Thr Ser Leu Leu
420 425 430

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INVENTOR(S): Takai *et al.*

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Arg Asp Cys Tyr Leu Leu Glu Glu Lys Glu Arg Leu Lys Glu Glu Trp
435 440 445

Ser Leu Phe Lys Glu Gln Lys Lys Asn Phe Glu Arg Glu Arg Arg Ser
450 455 460

Phe Thr Glu Ala Ala Ile Arg Leu Gly Leu Glu Arg Lys Ala Phe Glu
465 470 475 480

Glu Glu Arg Ala Ser Trp Leu Lys Gln Gln Phe Leu Asn Met Thr Thr
485 490 495

Phe Asp His Gln Asn Ser Glu Asn Val Lys Leu Phe Ser Ala Phe Ser
500 505 510

Gly Ser Ser Asp Trp Asp Asn Leu Ile Val His Ser Arg Gln Pro Gln
515 520 525

Lys Lys Pro His Ser Val Ser Asn Gly Ser Pro Val Cys Met Ser Lys
530 535 540

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Leu Thr Lys Ser	Leu Pro Ala Ser	Pro Ser Thr Ser	Thr Ser Asp Phe Cys Gln
545	550	555	560

Thr Arg Ser Cys	Ile Ser Glu His Ser	Ser Ile Asn Val Leu	Asn Ile
565	570	575	

Thr Ala Glu Glu	Ile Lys Pro Asn	Gln Val Gly Gly	Glu Cys Thr Asn
580	585	590	

Gln Lys Trp Ser	Val Ala Ser Arg	Pro Gly Ser Gln	Glu Gly Cys Tyr
595	600	605	

Ser Gly Cys Ser	Leu Ser Tyr Thr	Asn Ser His Val	Glu Lys Asp Asp
610	615	620	

Leu Pro
625

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In claim 3, at column 53, line 22, please delete "claim 1" and insert therefor --claim 2--.

In claim 4, at column 54, line 17, please delete "supematant" and insert therefor --supernatant--.

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